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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/633,604	08/07/2000	Markus Graulich	DE919990051	2697

7590

07/24/2003

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EXAMINER

CARTER, AARON W

ART UNIT

PAPER NUMBER

2625

DATE MAILED: 07/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/633,604

Applicant(s)

GRAULICH ET AL.

Examiner

Aaron W Carter

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 3 and 10 rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are:

- a) the step that comes before the step of evaluating a decision to restart an ABL.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1, 8 and 15 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6,269,171 to Gozzo et al. ("Gozzo").

As to claims 1, 8, and 15, Gozzo discloses a computer based method for use in accordance with an automatic mail sorting machine, the method comprising the steps of:

Scanning a piece of post mail in accordance with an address block locating (ABL) system for locating one or more address blocks on the piece of post mail (Fig. 7, element 66, "ABL");

Analyzing the one or more located address blocks in accordance with an optical character recognition (OCR) system (Fig. 7, element 66, "Segmentation/Reco"; and

Providing a coupling between the ABL system and the OCR system in which one or more results associated with one of the ABL system and the OCR system can be fed as an input to the other of the ABL system and the OCR system (Fig. 7, wherein the ABL is coupled to the Segmentation/Reco and the results of the ABL are fed as input to the Segmentation/Reco).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 2, 3, 9, and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gozzo as applied to claims 1, 8, and 15 above, and further in view of USPN 4,876,735 to Martin et al. ("Martin").

As to claims 2, 3, 9 and 10, Gozzo discloses the method/apparatus of claims 1 and 8, wherein Gozzo sends the top 3 candidate address blocks from the ABL (column 4, lines 11-12) to the OCR to locate ZIP codes based on a confidence level (column 4, lines 50-65) and if a valid ZIP code is not located the image is rejected (column 4, lines 40-44), but neglects to explicitly disclose that the ABL system is restarted to scan for a further address block when no ZIP code could be extracted by the OCR system from the current address block being analyzed. However, Martin teaches us a method of reading a document and performing character recognition which will indicate good recognition or if an error has occurred. If an error has occurred then a second read is performed on the document and a second character recognition is performed (column 3, lines 32-55). Therefore it would have been obvious to one of ordinary skill to combine the invention of Gozzo with the teachings of Martin. This would provide the invention Gozzo and providing the advantage of processing the ABL once sending a candidate address block to the OCR and determining if a zip code is located then if a valid ZIP code is not located the image is sent to the ABL and OCR again in an attempt to locate a valid ZIP code. As stated by Martin, this method improves the rate at which characters are recognized (column 1, lines 60-64).

7. Claims 4-7 and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gozzo as applied to claims 1, 8, and 15 above, and further in view of USPN 6,028,956 to Shustorovich et al. ("Shustorovich").

As to claims 4, 7, 11, and 14, Gozzo discloses the method/apparatus of claims 1 and 8, but neglects to explicitly disclose that the step of providing a coupling between the ABL system and the OCR system in which the ABL system continues to scan for further potential address

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blocks after having found at least one potential address block while the at least one potential address block is being processed by the OCR. However Shustorovich discloses a method of using a segments a portion of an image in which an object of interest is located, send the segment to a recognition process and while the recognition process is running a new object is being located and segmented (column 20, lines 46-65). Therefore it would have been obvious to one of ordinary skill in the art to combine the invention of Gozzo with the teachings of Shustorovich. This would provide the invention with the capability to run the ABL, send a candidate block to the OCR and while the OCR is performing recognition, the ABL is searching for another candidate block. Shustorovich further teaches that this method provides expedite processing thus decreasing delay.

As to claims 5 and 12, the combination of Gozzo and Shustorovich disclose the method/apparatus of claims 4 and 11, Gozzo further discloses a step of providing a ranking for each of the address blocks, being at least one of located and analyzed, for finding the most probable destination address block (Fig. 2, element 47).

As to claims 6 and 13, the combination of Gozzo and Shustorovich disclose the method/apparatus of claims 5 and 12, Gozzo further discloses wherein a type of information that the ranking is based on is at least one of:

- (i) confidence of the OCR result relating to each of the address blocks;
- (ii) address block content information (column 4, lines 8-11);
- (iii) confidence of the ABL result relating to the current address block just localized;

(iv) data retrievable by a sort plan associated with a site of the automated sorting machine;

(v) postmark information retrievable from a postmark; and

(vi) knowledge-based information derivable from at least one of the types of information in (i) through (v).

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

USPN 5,475,603 to Korowotny discloses the use of an ABL and OCR to locate ZIP codes.

USPN 5,299,269 to Gaborski et al. discloses a segmentation and OCR method.

USPN 5,805,747 to Bradford discloses parallel OCR systems.

“Address Block Location on Complex Mail Pieces” by Yu et al. discloses the use of an ABL and OCR to locate ZIP codes.

“Fast Address Block Location on Handwritten and Machine Printed Mail-piece Images” by Wolf et al. discloses the use of an ABL and OCR to locate ZIP codes.

Contact Information

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron W. Carter whose telephone number is 703.306.4060. The examiner can normally be reached by telephone between 8am - 4:30pm (Mon. – Fri.).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703.308.5246. The fax phone number for the organization where the application or proceeding is assigned is 703.872.9314 for regular communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703.306.0377.

Aaron W. Carter
Examiner
Art Unit 2625

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awc

July 17, 2003


BHAVESH M. MEHTA
SUPERVISORY PATENT EXAMINER
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